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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,607	11/21/2001	Masahiro Imoto	1830/50520	4194

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EXAMINER

RAO, DEEPAK R

ART UNIT PAPER NUMBER

1624

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/009,607

**Applicant(s)**

IMOTO ET AL.

**Examiner**

Deepak R Rao

**Art Unit**

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-36 are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-10, 14-18 and 22-35 are rejected.
- 7) ☒ Claim(s) 11-13, 19-21 and 36 are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

This office action is in response to the amendment filed on January 8, 2004.

Claims 3-36 are pending in this application.

#### ***Election/Restrictions***

As indicated in the previous office action, the claims were examined based on the elected species of compound no. 7, to the extent readable on the compounds of formula (I) wherein -Y-X-, n, B<sup>1</sup> and B<sup>2</sup> are as in the elected species and A is optionally substituted alkyl. Applicant's amendments overcome the prior art rejections of the previous office action and the newly presented Markush-type claim is reexamined according to the guidelines provided in MPEP § 803.02.

#### ***The following rejections are withdrawn:***

The rejection under 35 U.S.C. 112, first paragraph of the previous office action is hereby withdrawn in view of applicant's arguments, combined with the Declaration by Dr. Tani, wherein it was established that the compounds of the invention are effective as nicotinic receptor agonists. Based on the experimental data in Table 1, Dr. Tani asserts the beneficial properties of the compounds of the invention in treatment of cognition disorders and Alzheimer's disease.

The rejections under 35 U.S.C. 112, second paragraph of the previous office action are withdrawn in view of the amendments.

The rejections under 35 U.S.C. 102 (a), (b) and (e) are rendered moot by the amendments.

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*The following rejections are necessitated by the amendment:*

***Claim Rejections - 35 USC § 112***

Claims 10 and 26-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 depends from canceled claims. Appropriate amendment would obviate the rejection.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 35, 3-9, 14-18, 22-25 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by BE 613662. The instant claims read on reference disclosed compounds, see formula (I) in page 1 wherein R is optionally substituted phenyl and the corresponding examples. The compounds are disclosed to be useful as pharmaceutical agents. The intended use recitation in claims 3-9, 14-18 and 22-25 is not given patentable weight.
2. Claims 35, 3-9, 14-18, 22-25 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Janssens et al., U.S. Patent No. 4,588,722. The instant claims read on reference disclosed compounds, see formula (I) in col. 1 wherein L is Het-Alk- wherein Het is a radical of formula (c-4-c) and the corresponding compound no. 60 (col. 40, lines 36-38). The compounds are disclosed to be useful as pharmaceutical agents, see the

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abstract. The intended use recitation in claims 3-9, 14-18 and 22-25 is not given patentable weight.

3. Claims 35, 3-9, 14-18, 22-25 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Siegele, U.S. Patent No. 3,222,376. The instant claims read on reference disclosed compounds, see formula (I) in col. 1 and the corresponding examples. The reference teaches a composition of the compounds, see col. 1. The intended use recitation in claims 3-9, 14-18 and 22-25 is not given patentable weight.
4. Claims 35, 3-9, 14-18, 22-25 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Kosasayama et al., CAPLUS Abstract 92:15226 (1980). The instant claims read on reference disclosed compounds, see the compound RN 72105-70-5. The compounds are disclosed to be useful as pharmaceutical (hypoglycemic) agents. The intended use recitation in claims 3-9, 14-18 and 22-25 is not given patentable weight.
5. Claims 35 is rejected under 35 U.S.C. 102(b) as being anticipated by Jen et al. (J. Med. Chem. 1973). The instant claims read on reference disclosed compounds, see compounds 14 and 15 in page 408.
6. Claims 35, 3-9, 14-18, 22-25 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Kulinski et al., CAPLUS Abstract 123:143806 (1995). The instant claims read on reference disclosed compounds, see the compounds disclosed in the enclosed copy of the computer search report. The compounds are disclosed to be useful as pharmaceutical agents. The intended use recitation in claims 3-9, 14-18 and 22-25 is not given patentable weight.

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***Allowable Subject Matter***

Claims 11-13, 19-21 and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10 and 26-33 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The references of record do not teach or fairly suggest the compounds of claim 36.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

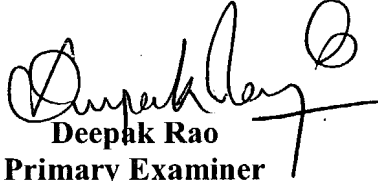
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deepak Rao whose telephone number is (571) 272-0672. The examiner can normally be reached on Tuesday-Friday from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Mukund Shah, can be reached on (571) 262-0674. If you are unable to reach Dr. Shah within a 24 hour period, please contact James O. Wilson, Acting-SPE of 1624 at (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

  
**Deepak Rao**  
**Primary Examiner**  
**Art Unit 1624**

April 2, 2004